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From: Koch, Kristine
Sent: Tuesday, November 24, 2015 2:23 PM
To: Carl Stivers
Cc: Cora, Lori; Sheldrake, Sean (sheldrake.sean@epa.gov)
Subject: Portland Harbor Information Request

Carl – Here is EPA’s response to LWG’s request #14.

Below is an explanation to hopefully clarify the response regarding the NAPL area outline:

For Figure 3.3-28 (Arkema) the NAPL is defined from an outline of “Visual NAPL” locations in Figure 1 of the 6/25/13 CDM Smith memo.

For Figure 3.3-29 (Gasco) the NAPL is defined as an outline of the “Core with Liquid Substantial Product” locations from Gasco EE/CA Figure 2.5.3-1.

CDM Smith modified EE/CA Figure 2.5.3-1 to outline the area where liquid substantial product was identified by Anchor. Because some of the cores did not have liquid substantial product (NAPL), the Substantial Product Area identified in EE/CA Figure 2.5.3-1 is slightly larger than the NAPL area presented in FS Figure 3.3-29. Anchor applied the Gasco 2009 AOC Substantial Product definition (copied below) to identify liquid substantial product (NAPL) locations and CDM Smith used their work for the FS. The “band” is different than “liquid NAPL” (see Criteria 1 and 2 below) – both are substantial product per the Gasco AOC.

Gasco 2009 AOC Substantial Product definition:

Based on core observations, the working definition of “substantial presence of product” is those sediments that meet the following criteria:

1. Bands of product, layers of product, “saturated” sediments, “stained” sediments, and/or seams of product that are greater than 2 inches thick.
2. Any layer or seam of product, regardless of thickness, that is clearly defined as liquid NAPL that is also mobile (i.e., “oozes” or “drips” out of the core during core observations).

Modifying factors to this definition are:

1. If top 5 ft of core has no substantial product under Criteria #1, then deeper product should be judged as “not substantial”, even if relatively thick layers of product exist at greater depths.
2. If there are any seams of mobile liquid NAPL (not solid or semisolid tar) per Criteria #2 then this is substantial product regardless of depth and the characteristics of overlying sediments.

The following is NOT substantial product:

- Any layers of non-mobile product (i.e., bands, layers, saturated sediments, stained sediments) that are less than 2 inches thick.
- Petroleum odors that are not associated with visual evidence of product beyond sheens and blebs.
- Sheens that are not associated with more substantial visuals of product
- Isolated product blebs or spots not associated more substantial visuals of product

Regards,

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